

II. CLAIM AMENDMENTS

1. (Currently Amended) A method comprising:

transferring image information from a camera module to an electronic device, wherein the camera module is constructed as an integral part of the electronic device, by:

capturing an image in the camera module by means of an image sensor comprising pixels which convert light to which the pixels are exposed into an analogue signal, the image being captured at a maximum resolution by using every pixel in the image sensor;

converting said analogue signal into digital image information by analogue-to-digital conversion,

in response to the digital image information having been captured at the maximum resolution by the camera module, using the electronic device for controlling whether the captured digital image information, ~~after having been captured by the camera module at a maximum resolution~~, is to be transferred to the electronic device as captured, or in a reduced form suitable for a view finder mode display, said reduced form ~~being a representation of comprising image information from~~ substantially the entire image area of the ~~captured~~ digital image information captured by using every pixel in the image sensor; and

transferring a selected form of the digital image information from the camera module to the electronic device via an internal serial connection bus of the electronic device.

2. (Cancelled)
3. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of digital image information to be transferred from the camera module is conducted by adjusting the conversion accuracy of the analogue-to-digital conversion.
4. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of information to be transferred from the camera module is conducted by reducing the resolution of the image.
5. (Previously Presented) A method according to claim 4, wherein reduction of the resolution of the image is conducted by under-sampling the digital image information.
6. (Previously Presented) A method according to claim 4, wherein the resolution of the image is restored in the electronic device by interpolation from the received digital image information.
7. (Currently Amended) A camera module constructed as an integral part of an electronic device, the camera module comprising:

an image sensor with pixels for conducting photoelectric conversion, and an analogue-to-digital converter for conversion of an analogue signal generated by said pixels into digital image information, the digital image information being captured at a maximum resolution by using all of the pixels of the image sensor, |
the camera module further comprising:

a serial connection circuit for transferring digital image information to the electronic device and for receiving control information from the electronic device, wherein said control information operates to control the amount of the digital image information, captured by the camera module, to be transferred to the electronic device, and further wherein, in response to the digital image information having been captured at the maximum resolution, said control information operates to control; whether the captured digital image information, ~~after having been captured by the camera module~~, is to be transferred to the electronic device as captured, or in a reduced form suitable for a view finder mode display, said reduced form ~~being a representation of~~ comprising image information from substantially the entire image area of the captured digital image information captured by using all of the pixels of the image sensor, the captured digital image information being captured at a maximum resolution by the camera module, via an internal serial connection bus of the electronic device and further wherein said control is executed by the electronic device.

8. (Cancelled)

9. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by adjusting the conversion accuracy of the analogue-to-digital conversion performed by the analogue-to-digital converter.

10. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by reducing the resolution of the image.

11. (Previously Presented) A camera module according to claim 10, adapted to reduce the resolution of the image by under-sampling the digital image information.

12. (Cancelled)

13. (Currently Amended) A mobile station, comprising a camera module constructed as an integral part of the mobile station, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, an analogue-to-digital converter for converting an analogue signal generated by the image sensor into digital image information captured at a maximum resolution by using every pixel in the image sensor, the mobile station comprising an internal serial connection bus for transferring digital image information from the camera module to the mobile station, and wherein in response to the digital image information having been captured at the maximum resolution, said control information operates to control whether the digital image information, after having been captured by the camera module at a maximum resolution of the camera module, is to be transferred to the mobile station as captured, or in a reduced form suitable for a view finder mode display, said reduced form being a representation of comprising image information from substantially the entire image area of the captured digital image information captured by using every pixel of the image sensor; and to control the transfer of the selected form of the digital image information formed from the camera module to the mobile station, further wherein said control is executed by the mobile station.

14-15. (Cancelled)

16. (Previously Presented) A mobile station according to claim 13, wherein the internal serial connection bus comprises a serial bus and a control serial bus and that the mobile station is adapted to transfer control information to the camera module via said control serial bus and to receive digital image information from the camera module in serial form via said serial bus.

17-18. (Cancelled)

19. (Previously Presented) A mobile station according to claim 13, further comprising means for transmitting digital image information, transferred from the camera module to the mobile station, from the mobile station via a wireless link.

20. (Cancelled)

21. (Previously Presented) A method according to claim 45, wherein the camera module is set into viewfinder mode responsive to a control signal received from the electronic device.

22. (Previously Presented) A method according to claim 45, wherein the camera module is set into normal photographic mode responsive to a control signal received from the electronic device.

23. (Previously Presented) A method according to claim 1, wherein the transfer of digital image information from the camera module to the electronic device is started responsive to a control signal received from the electronic device.

24. (Cancelled)

25. (Previously Presented) A method according to claim 45, wherein reduction of the quantity of digital image information to be transferred from the camera module is conducted by leaving less significant bits of the digital image information untransferred.

26. (Previously Presented) A method according to claim 45, wherein the camera module captures an image with maximum resolution and reduces the quantity of digital image information to be transferred at the stage when the digital image information is transferred to the electronic device.

27. (Previously Presented) A method according to claim 1, wherein the image is displayed on a display of the electronic device.

28 - 29. (Cancelled)

30. (Previously Presented) A method according to claim 1, wherein the electronic device is a mobile station and the method further comprises transmitting digital image information, transferred from the camera module to the mobile station, from the mobile station via a wireless link.

31. (Previously Presented) A camera module according to claim 47, adapted to be set into viewfinder mode responsive to a control signal received from the electronic device.

32. (Previously Presented) A camera module according to claim 47, adapted to be set into normal photographic mode responsive to a control signal received from the electronic device.

33. (Previously Presented) A camera module according to claim 7, adapted to start the transfer of digital image information from the camera module to the electronic device responsive to a control signal received from the electronic device.

34. (Cancelled)

35. (Previously Presented) A camera module according to claim 47, adapted to reduce the quantity of digital image information to be transferred from the camera module by leaving less significant bits of the digital image information untransferred.

36. (Previously Presented) A camera module according to claim 47, adapted to capture an image with maximum resolution and to reduce the quantity of digital image information to be transferred at the stage when the digital image information is transferred to the electronic device.

37 - 43. (Cancelled)

44. (Previously Presented) A method according to claim 1, wherein the digital image information is transferred from the camera module to the electronic device via the internal serial connection bus under control of the electronic device.

45. (Previously Presented) A method according to claim 1, wherein the camera module is adapted to operate in either one of a normal photographic mode and a viewfinder mode, such that when operating in viewfinder mode the camera module reduces the quantity of digital image information to be transferred from the camera module to the electronic device compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

46. (Cancelled)

47. (Previously Presented) A camera module according to claim 7, adapted to operate in either one of a normal photographic mode and a viewfinder mode and, when operating in viewfinder mode, to reduce the quantity of digital image information to be transferred from the camera module to the electronic device compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

48. (canceled)

49. (Previously Presented) A mobile station according to claim 13, wherein the camera module is adapted to operate in either one of a normal photographic mode and a viewfinder mode and, when operating in viewfinder mode, to reduce the quantity of digital image information to be transferred from the camera module to the mobile station compared with the quantity of digital image information that is transferred when the camera operates in normal photographic mode.

50. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by adjusting the conversion accuracy of the analogue-to-digital conversion performed by the analogue-to-digital converter.

51. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by reducing the resolution of the image.

52. (Previously Presented) A mobile station according to claim 51, wherein the camera module is adapted to reduce the resolution of the image by under-sampling the digital image information.

53. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to be set into viewfinder mode responsive to a control signal received from the mobile station.

54. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to be set into normal photographic mode responsive to a control signal received from the mobile station.

55. (Previously Presented) A mobile station according to claim 13, wherein the camera module adapted to start the transfer of digital image information responsive to a control signal received from the mobile station.

56. (Cancelled)

57. (Previously Presented) A mobile station according to claim 49, wherein the camera module is adapted to reduce the quantity of digital image information to be transferred from the camera module by leaving less significant bits of the digital image information untransferred.

58 - 60. (Cancelled)

61. (Previously Presented) A mobile station according claim 13, further comprising a display for displaying images produced by the camera module.

62. (Currently Amended) A method comprising:

transferring image information from a camera module to an electronic device, the camera module constructed as a non-removable, integral part of the electronic device, the method further comprising:

capturing an image in the camera module at a maximum resolution, by means of an image sensor comprising pixels which convert light to which the pixels are exposed into an analogue signal, using every pixel in the image sensor;

converting said analogue signal into digital image information by analogue-to-digital conversion, and

in response to the digital image information having been captured at the maximum resolution by the camera module, using the electronic device for controlling, whether the digital image information, after having been captured by the camera

module at a maximum resolution, is to be transferred to the electronic device as captured, or in a reduced form suitable for a view finder mode display, said reduced form ~~being a representation of~~ comprising image information from substantially the entire image area of the ~~captured~~ digital image information captured using every pixel of the image sensor; and

transferring a selected form of the digital image information from the camera module to the electronic device via an internal serial connection bus of the electronic device.

63. (Currently Amended) A camera module constructed as a non-removable, integral part of an electronic device, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, and an analogue-to-digital converter for conversion of an analogue signal generated by said pixels into digital image information, the digital image information being captured at a maximum resolution by using every pixel in the image sensor, the camera module further comprising a serial connection circuit for transferring digital image information to the electronic device and for receiving control information from the electronic device, wherein, in response to the digital image information having been captured at the maximum resolution by the camera module, said control information operates to control the amount of the digital image information, ~~after having been captured by the camera module at a maximum resolution of the camera module~~, to be transferred to the electronic device, and further wherein said control information operates to control, whether the digital image information, after having been captured by the camera module at the maximum resolution, is to be transferred to the electronic device as captured, or in a reduced form suitable for a view finder mode display, said reduced ~~form being a representation of~~ comprising image information from substantially the entire image area of the ~~captured~~ digital image information captured by using every pixel in the image sensor

via said serial connection circuit to the electronic device and further wherein said control is executed by the electronic device.

64. (Currently Amended) An apparatus comprising:

a mobile station;

a camera module that is a non-removable, integral part of the mobile station, the camera module comprising an image sensor with pixels for conducting photoelectric conversion, an analogue-to-digital converter for converting an analogue signal generated by the image sensor into digital image information, the digital image information being captured at a maximum resolution by using every pixel in the image sensor;

the mobile station comprising an internal serial connection bus for transferring digital image information from the camera module to the mobile station and, in response to the digital image information having been captured at the maximum resolution by the camera module for transferring control information relating to ~~the from the electronic device, wherein,~~ said control information ~~operates~~operating to control; whether the digital image information, ~~after having been captured by the camera module at a maximum resolution of the camera module~~; is to be transferred to the mobile station as captured, or in a reduced form suitable for a view finder mode display, said reduced form ~~being a representation of~~ comprising image information from substantially the entire image area of the ~~captured~~ digital image information captured by using every pixel in the image sensor; and to control the transfer of the selected form of the digital image information from the camera module to the mobile station, and further wherein said control is executed by the mobile station.

65. (Previously Presented) The method of claim 1 further comprising, when transferring the image data, determining a number of bits to represent each pixel.